

ABSTRACT

An implantable, miniature pump assembly having a flexible bladder actuating assembly. The bladder, in the non-flexed state, has an elongated, substantially rectangular profile, with a predetermined internal volume or capacity. Influent and effluent conduits extend in opposite directions from respective end portions of the bladder. Each of the conduits include one way valves disposed therein to limit fluid flow to a single direction into and through the bladder.

Expansion of the bladder in response to ambient conditions creates a temporary vacuum within the bladder, drawing fluid into the bladder through the influent conduit, whereas contraction of the bladder in response to ambient pressure conditions forces fluid from the bladder via the effluent conduit.